

Figure 8. Sea turtle sightings from mark-recapture study 1988 – 2004 during the spring (a), summer (b), fall (c), and winter (d).

Abundance

Estimating the abundance of turtles presents a challenge to researchers as the animals are submerged and out of sight for long periods. This behavior makes it difficult to employ standard survey methods used for other marine animals, such as line transect techniques. Nevertheless, the tagging work conducted by NMFS in Core and Pamlico Sounds presents a unique opportunity to estimate abundance using mark-recapture techniques. The STAC formally inquired to NMFS about these data and were provided with the following response: "given the inherent variability in our data, our statistical power to detect a small trend in our index of population size is very low. Thus far, we (NMFS) are unable to detect a trend in the index of abundance for green and Kemp's ridleys. We